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- Asano, Michinari, Sumitomo Electric Ind., Ltd.  
Itami-shi, Hyogo (JP)
- Shiraishi, Junichi, Sumitomo Electric Ind., Ltd.  
Itami-shi, Hyogo (JP)
- Nakai, Tetsuo, Sumitomo Electric Ind., Ltd.  
Itami-shi, Hyogo (JP)

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(71) Applicant: Sumitomo Electric Industries, Ltd.  
Osaka (JP)

(74) Representative:  
Cross, Rupert Edward Blount et al  
BOULT WADE TENNANT,  
Verulam Gardens  
70 Gray's Inn Road  
London WC1X 8BT (GB)

(72) Inventors:  
• Yoshida, Katsuhito, Sumitomo Electric Ind., Ltd.  
Itami-shi, Hyogo (JP)

(54) A diamond sintered compact and a process for the production of the same

(57) The present invention aims at providing a material for a diamond sintered compact tool, which has a high strength and is available as a material for a cutting tool.

Accordingly, the present invention is concerned with a diamond sintered compact comprising a WC-Co type cemented carbide substrate having slight undulation

and a diamond sintered compact bonded to one surface of the substrate by sintering during a step of sintering at an ultra-high pressure and high temperature, which has a plate thickness is 0.5 mm to 5 mm and an outer diameter is at least 20 mm and whose diamond sintered compact layer has at least 50 % of a thickness area within a range of 0.05 mm to 0.4 mm and contains Co diffusing from the cemented carbide substrate.

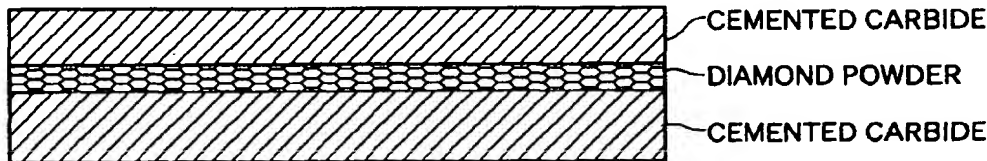


FIG. 1

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# EUROPEAN SEARCH REPORT

Application Number  
EP 99 30 6088

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 5 011 515 A (FRUSHOUR ROBERT H) 30 April 1991 (1991-04-30) * column 3, line 13 - column 3, line 21 * * column 5, line 50 - column 5, line 56; figures 2-7; example 1 *	1-8	B01J3/06 C23C30/00 B22F7/06 B24D3/18 B24D18/00
X	EP 0 786 300 A (GEN ELECTRIC) 30 July 1997 (1997-07-30) * column 1, line 3 - column 10 * * column 5, line 42 - column 6, line 11; claims 1,2,7,8; figures 2-6 *	1-8	
X	US 4 293 618 A (HARA AKIO ET AL) 6 October 1981 (1981-10-06) * claim 1; example 1 *	5-8	
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B01J C04B E21B C23C B22F B24D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 22 August 2000	Examiner Willsher, C
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ON EUROPEAN PATENT APPLICATION NO.**

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